

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks. Support for the claim amendments and additions can be found in the original disclosure. No new matter has been added.

CLAIM OBJECTIONS

Claims 2 and 31 are objected to because of alleged informalities. Claim 2 now recites: “the extensible profile” instead of “an extensible profile. Claim 31 now recites “the profile structure,” instead of “an extensible profile.”

Applicant, therefore, respectfully requests that the Office withdraw the objections.

§ 102 REJECTIONS

Claims 26 and 29 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pub. No. 2002/0065952 A1 issued to Sullivan et al. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, Applicant herein amends independent claim.

26. (Currently Amended) A method of assembling a topology of digital media components on a computer-based processing device, comprising:
reading lists of capabilities from a profile register;
searching a component register for entries containing the capabilities indicated in the profile register; and

rejecting components that lack the capabilities indicated in the profile register, or that have capabilities incompatible with the capabilities in the profile register,
wherein the profile register determines which components are needed for a selected task requested by an application,
wherein the profile register may be updated or modified without modifying the application, and
wherein at least one capability is stored as a registry subkey that is implemented as a ratio quantity or a numerical pair that represent pairs of values. (emphasis added)

For the reasons discussed during the interview, Applicant respectfully submits that Sullivan fails to disclose, either expressly or inherently the features of this claim emphasized above. In fact, during the interview, Applicant understood the Examiner to tentatively agree. For at least these reasons, Applicant respectfully submits that claim 26 stands allowable.

Dependent claim 28 depends from independent claim 26 and is allowable by virtue of this dependency, as well as for additional features that it recites. Applicant respectfully requests that the § 102 rejection of this claim be withdrawn.

§ 103 REJECTIONS

Claims 1-25, 27, 30, 31 and 34 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pub. No. 2002/0065952 A1 issued to Sullivan et al. in view of U.S. Pat. No. 6,044,408 issued to Engstrom et al.

Claim 28 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sullivan et al. in view Engstrom et al. as applied to claim 27 above, and further in view of U.S. Pat. No. 6,185,625 B1 issued to Tso et al.

Claims 32 and 33 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sullivan et al. in view of Engstrom et al. as applied to claim 31

above, and further in view of U.S. Pub. No. 2003/0097458 A1 issued to Bourges-Sevenier.

Applicant respectfully traverses the rejections. Nevertheless, Applicant has amended independent claims 1, 10, 17, 25, 26 and 31 without conceding the propriety of the Office's rejections.

SULLIVAN IN VIEW OF ENGSTROM

Claim 1 recites (emphasis added):

1. (Currently Amended) A method of selecting at least one digital media component to construct a device that accomplishes one or more tasks identified in an extensible profile, comprising:

retrieving, from the extensible profile, at least one required capability for performing the selected task as requested by an application, **wherein the extensible profile is a fixed list of configuration settings that accomplish the selected task;**

selecting, from a component register, one or more component entries with capability lists that include the required capability, **wherein the capability lists comprise a listing of capabilities of the each digital media component available for use by the application;** and

instantiating one or more components corresponding to the selected entries, wherein instantiating occurs via an Application Programming Interface (API),

wherein the application uses the extensible profile to determine which of the one or more components are needed for the selected task,

wherein the extensible profile may be updated or modified without modifying the application,

wherein control identifiers used by the API for controlling one or more devices correspond to the configuration settings which have a defined dependency ordering that can be expressed as a directed acyclic dependency graph,

wherein the configuration settings are structured such that changing a parameter causes a component to reconfigure one or more dependent settings, and high-level configuration settings can be modified independent of a low-level configuration setting, and

wherein at least one capability is stored as a registry subkey, that is implemented as a ratio quantity or a numerical pair that represent pairs of values.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claim 1 is amended to more distinctly recite features of Applicant's claimed subject matter.

For the reasons discussed during the interview, Applicant respectfully submits that Sullivan and Engstrom, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim emphasized above. In fact, during the interview, Applicant understood the Examiner to tentatively agree. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 2-9 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims be withdrawn.

Claim 10 recites (emphasis added):

10. (Currently Amended) An apparatus, comprising:
a processor;

a memory module connected to the processor and comprising logic instructions operative to configure the processor to:

retrieve, from an extensible profile, at least one required capability for performing a selected task as requested by an application, **wherein the extensible profile is a fixed list of configuration settings that accomplish the selected task;**

select, from a component register, one or more entries that include

the required capability in their capability list; and

instantiate via an application programming interface (API) one or more components corresponding to the selected entries;

wherein the application uses the extensible profile to determine which of the one or more components are needed for the selected task,

wherein the extensible profile may be updated or modified without modifying the application;

wherein control identifiers used by the API for controlling one or more devices correspond to the configuration settings which have a defined dependency ordering that can be expressed as a directed acyclic dependency graph, and

wherein the configuration settings are structured such that changing a parameter causes a component to reconfigure one or more dependent settings, and high-level configuration settings can be modified independent of a low-level configuration setting.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claim 10 is amended to more distinctly recite features of Applicant's claimed subject matter.

For the reasons discussed during the interview, Applicant respectfully submits that Sullivan and Engstrom, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or

suggest the features of this claim emphasized above. In fact, during the interview, Applicant understood the Examiner to tentatively agree. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 11-16 depend from independent claim 10 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims be withdrawn.

Claim 17 recites (emphasis added):

17. (Currently Amended) A method of interfacing digital media components on a computer-based processing device, comprising:

constructing a component register comprising of entries which contain listings of capabilities of digital media components accessible to the computer-based processing device; and

in response to a request from an application for digital media services, searching the component register for a component capable of providing the requested service,

wherein the application uses an extensible profile to determine which of the digital media components are needed for the selected task,

wherein the extensible profile may be updated or modified without modifying the application, and

wherein at least one capability is stored as a registry subkey that is implemented as a ratio quantity or a numerical pair that represent pairs of values.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of

expediting allowance of the application, independent claim 17 is amended to more distinctly recite features of Applicant's claimed subject matter.

For the reasons discussed during the interview, Applicant respectfully submits that Sullivan and Engstrom, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim emphasized above. In fact, during the interview, Applicant understood the Examiner to tentatively agree. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 18-24 depend from independent claim 17 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims be withdrawn.

Claim 25 recites (emphasis added):

25. (Currently Amended) A method of interfacing digital media components on a computer-based processing device, comprising:

- constructing a component register comprising at least one entry including listings of capabilities of digital media components accessible to the computer-based processing device, wherein at least one listing comprises one or more data fields, including:

- a first data field that identifies a function performed by a digital media component; and

- a second data field that identifies one or more operational parameters associated with a function identified in the first data field ;

- constructing a profile register comprising at least one record representing a

- digital media function, the record comprising a data field having one

- or more operating parameters associated with the digital media function; and

in response to a request from an application for digital media services:

searching the profile register for a record that corresponds to the

requested media service; and

searching the component register for a component capable of providing the requested service,

wherein the profile register is used to determine which of the digital media components are needed for the request from the application for digital media services,

wherein the profile register may be updated or modified without modifying the application for digital media services, and

wherein at least one capability is stored as a registry subkey, that is implemented as a ratio quantity or a numerical pair that represent pairs of values.

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claim 25 is amended to more distinctly recite features of Applicant's claimed subject matter.

For the reasons discussed during the interview, Applicant respectfully submits that Sullivan and Engstrom, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim emphasized above. In fact, during the interview, Applicant understood the Examiner to tentatively agree. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 27-30 depend from independent claim 25 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims be withdrawn.

Claim 31 recites (emphasis added):

31. (Currently Amended) A method of assembling and configuring a topology of digital media components on a computer-based processing device, comprising:
using a profile structure and one or more associated capability lists to select a component;
instantiating the selected component;
applying an the profile structure to the selected component;
and
logically connecting the component to one or more additional components,
wherein the profile structure may be updated or modified without modifying a requesting application, and
wherein at least one capability is stored as a registry subkey, that is implemented as a ratio quantity or a numerical pair that represent pairs of values.

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claim 31 is amended to more distinctly recite features of Applicant's claimed subject matter.

For the reasons discussed during the interview, Applicant respectfully submits that Sullivan and Engstrom, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim emphasized above. In fact, during the interview, Applicant understood the Examiner to tentatively agree. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 32-33 depend from independent claim 31 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims be withdrawn.

Claim 34 recites (emphasis added):

34. (Previously Presented) A method of configuring a topology of encoding and multiplexing digital media components on a computer-based processing device, comprising:
searching an extensible profile for a multiplexer subprofile configuration;
searching a component register for a multiplexer object compatible with the multiplexer subprofile;
instantiating **a multiplexer**;
configuring the multiplexer by applying the subprofile configuration settings using an interface API;
connecting the multiplexer to an output of a content source, and, for each input stream of the multiplexer:
searching the extensible profile for an encoder subprofile;
searching the component register for a multiplexer object compatible with the subprofile;
configuring the encoder by applying the subprofile configuration settings using an interface API; and
connecting the encoder to the multiplexer,
wherein the extensible profile determines which multiplexer objects are compatible with the multiplexer subprofile information,
wherein the extensible profile may be updated or modified without modifying a requesting application.

Claim 34 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom. Applicant respectfully traverses the rejection.

Applicant respectfully submits that Sullivan in view of Engstrom, whether taken alone or in combination (assuming for the sake of argument that they can be

combined), fail to teach or suggest the features of this claim emphasized above. Specifically, the cited references do not teach or suggest “instantiating a **multiplexer.**”

In the Action, the Office states that Engstrom teaches this feature at Col. 4, lines 19-29, Col. 8 line 59-67 and Col. 9, lines 1-6.

Col. 4, lines 19-29:

20 The API includes a number of functions to access media
types rendered by the respective media devices. For
example, the display device API includes functions to access
and manipulate surface memory holding a pixmap to be
drawn on a display device, and palettes to be used to specify
the entries in the display device's color table. These func-
25 tions can be optimized by the API by identifying the
available hardware or software capabilities needed to pro-
cess a particular API request, and using the available hard-
ware capabilities where possible to process the call.

Col. 8 line 59-67

FIG. 4 is a flow diagram illustrating how a media API
60 determines how to process an API request in one implemen-
tation. In response to API request (such as bit a pixel block,
mix sounds in sound buffers, render the 3D graphics scene
described in an execute buffer), the API identifies the
requested capabilities for the request. As an optimization,
65 the API determines whether the requested capabilities are in
the intersection of available hardware and software
capabilities, which it obtained as shown in FIG. 3. If the

Col. 9, lines 1-6

capabilities are in the intersection, then there is no need to
perform further checking. The API then packages the param-
eters needed to process the request and instructs the hard-
ware device to perform it (114). In this particular
implementation, therefore, the API chooses the hardware
over the software capabilities when both are available.

However, as seen above, the cited portions do not teach or suggest a multiplexer. In fact, none of the references in their entirety even mention a multiplexer.

Accordingly, at least for this reason, Applicant respectfully submits that cited combination at least fails to teach or suggest “instantiating a multiplexer” and, as such, this claim is allowable.

SULLIVAN IN VIEW OF ENGSTROM IN VIEW OF TSO

Dependent claim 28 depends from independent claim 26 and is allowable by virtue of this dependency, as well as for additional features that it recites.

Dependent claim 28 stands rejected under 35 U.S.C. § 103(a) as being obvious over Sullivan in view of Engstrom and further in view of Tso. Applicant respectfully traverses the rejection. Applicant asserts that as discussed above in regards to independent claim 26, that Sullivan and Engstrom do not teach or suggest the amended features of this claim. In addition, applicant also asserts that Tso fails remedy deficiencies in the rejection of independent claim 1. Instead, Tso describes, “a system for enhancing data access over a communications link [is disclosed]. In accordance with a particular embodiment, a system for retrieving an object over a computer network includes a network client with a browser for rendering an object to a user and a user interface enabling the user to establish an encoding preference.” (Abstract).

However, Tso fails to remedy the deficiencies in Sullivan and Engstrom. Specifically, Tso fails to disclose or suggest: “wherein at least one capability is stored as a registry subkey, that is implemented as a ratio quantity or a numerical pair that represent pairs of values.”

Thus, Tso fails to remedy the deficiencies in Sullivan and Engstrom. Thus, Sullivan, Engstrom, and Tso whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest at least the features of claim 28. Accordingly, as discussed during the interview, this claim is allowable.

SULLIVAN IN VIEW OF ENGSTROM IN VIEW OF BOURGES-SEVENIER

Dependent claims 32-33 depend from independent claim 31 and are allowable by virtue of this dependency, as well as for additional features that they recite.

Dependent claims 32-33 stand rejected under 35 U.S.C. § 103(a) as being obvious Sullivan in view of Engstrom and further in view of Bourges-Sevenier. Applicant respectfully traverses the rejection. Applicant asserts that as discussed above in regards to independent claim 31, that Sullivan and Engstrom do not teach or suggest the amended features of this claim. In addition, applicant also asserts that Bourges-Sevenier fails remedy deficiencies in the rejection of independent claim 31. Instead, Bourges-Sevenier describes, “Four new nodes [are proposed]

for an MPEG 4 audiovisual streaming data. Each of the nodes is encoded as a declarative operation in the scene data field of the MPEG 4 standard. The nodes are physics node, non-linear deformer node, MP4 movie texture node and camera sensor node.” (Abstract).

However, Bourges-Sevenier fails to remedy the deficiencies in Sullivan and Engstrom. Specifically, Bourges-Sevenier fails to disclose or suggest: “wherein at least one capability is stored as a registry subkey, that is implemented as a ratio quantity or a numerical pair that represent pairs of values.”

Thus, Bourges-Sevenier fails to remedy the deficiencies in Sullivan and Jones. Thus, Sullivan, Engstrom, and Bourges-Sevenier whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest at least the features of claim 31. Accordingly, as discussed during the interview, these claims are allowable.

CONCLUSION

For at least the foregoing reasons, the pending claims are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance. If any issue remains unresolved that would prevent allowance of this case, Applicant respectfully requests the Office to contact the undersigned attorney to resolve the issue.

Lee & Hayes, PLLC
Representatives for Applicant

By: /David K. Sakata/

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David K. Sakata (davids@leehayes.com; 509 944 4716)
Registration No. 59,959

Robert G. Hartman (rob@leehayes.com; 509 944 4765)
Registration No. 58,970

Customer No. **22801**

Facsimile: (509) 323-8979
www.leehayes.com